

Active Recombinant Human NMNAT1 protein, His-tagged

Cat. No. NMNAT1-77H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human NMNAT1 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.
Description	NMNAT1, also known as NMNAT or PNAT1, is a central enzyme in NAD biosynthesis, catalyzing the condensation of nicotinamide mononucleotide (NMN) or nicotinic acid mononucleotide (NaMN) with the AMP moiety of ATP to form NAD or NaAD. It is widely expressed with high levels in skeletal muscle, heart, liver and kidney. This protein appears to have the ability to protect against axonal degeneration following mechanical or toxic insults.
Source	Insect cell
Species	Human
Tag	His
Form	Liquid. 20mM Tris-HCl buffer (pH8.0) containing 20% glycerol, 0.1M NaCl, 1mM DTT. 1mM EDTA
Bio-activity	Specific activity is >7,000 pmol/min/ug, and was obtained by measuring the beta-NAD from nicotinamide mononucleotide and ATP per minute at pH 8.0 at 37C.
Molecular Mass	36.0 kDa (315aa) confirmed by MALDI-TOF
AA Sequence	MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWGSMENS EKTEVVLLAC

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GSFNPITNMH LRLFELAKDY MNGTGRTYTV KGIISPVGDAYKKKGLIPAY
 HRVIMAEELAT KNSKWVEVDT WESLQKEWKE TLKVLRRHHQE KLEASDCDHQ
 QNSPTLERPG RKRKWTETQD SSQKKSLPEK TKAVPKVKLL CGADLLESFA
 VPNLWKSEDI TQIVANYGLI CVTRAGNDAQ KFIYESDVLW KHRSNIHVVN
 EWIANDISST KIRRALRRGQSIRYLVPLDV QEYIEKHNLV SSESEDRNAG
 VILAPLQRNT AEAK

Purity >95% by SDS - PAGE

Storage Can be stored at +4 centigrade short term (1-2 weeks). For long term storage, aliquot and store at -20 centigrade or -70 centigrade. Avoid repeated freezing and thawing cycles.

Concentration 1 mg/ml (determined by Bradford assay)

GENE INFORMATION

Gene Name NMNAT1 nicotinamide nucleotide adenyltransferase 1 [Homo sapiens]

Official Symbol NMNAT1

Synonyms LCA9; NMNAT; PNAT1; NMN adenyltransferase 1; NMN/NaMN adenyltransferase 1; NaMN adenyltransferase 1; nicotinamide mononucleotide adenyltransferase 1; nicotinamide-nucleotide adenyltransferase 1; nicotinate-nucleotide adenyltransferase 1; pyridine nucleotide adenyltransferase 1

Gene ID 64802

mRNA Refseq NM_001297778

Protein Refseq NP_001284707

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MIM	608700
UniProt ID	Q9HAN9
Chromosome Location	1p36.22
Pathway	Metabolic pathways, organism-specific biosystem; Metabolism of vitamins and cofactors, organism-specific biosystem; NAD biosynthesis from 2-amino-3-carboxymuconate semialdehyde, organism-specific biosystem
Function	ATP binding; nicotinamide-nucleotide adenylyltransferase activity; nicotinate-nucleotide adenylyltransferase activity

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